CLAIMS

What is claimed is:

1.   A method of communicating between a first device and a second device over a communications link, the method comprising the steps of:

5   establishing a communicative connection between a first device and a second device;

subsequent to receiving the tag line message at the first device, transmitting a service-command from the first device to the second device of the communications link, the service-command identifying a particular service

10   to be performed by the second device; and

in response to receiving the service-command at the second device, initiating the requested service and transmitting a status-response to the first device over the communications link.

15   2.   The method of claim 1, wherein said step of establishing a communication link further comprises the step of transmitting a tag line message from the second device to the first device over the communications link and receiving the tag line message by the first device.

20   3.   The method of claim 1, further comprising prior to the transmitting a service-command step and subsequent to the establishing a communication link step, the steps of:

transmitting a type-command from a first device to a second device, the type-command requesting the second device to provide service

25   information defining a set of services offered by the second device; and

in response to receiving the type-command at the second device, transmitting the service information from the second device to the first device;

4.   The method of claim 3 wherein the step of transmitting the service information further comprises the step of transmitting a plurality of device types offered by the second device.

5.   The method of claim 1, further comprising prior to the transmitting a service-command step and subsequent to the establishing a communication link step, the steps of:

transmitting a use-command from the first device to the second device, the use-command requesting the second device to provide use information defining the requirements for invoking one of a set of services offered by the second device;

in response to receiving the use-command at the second device, transmitting the use information from the second device to the first device.

6.   A device that is capable of communicating over a communications link with a plurality of server devices of a plurality of device types, the device comprising:

a communications link interface; and

a processing unit, the processing unit being operable to send and receive data over the communications link and being operable to:

establish a communicative connection between the device and a particular server device of the plurality of server devices;

obtain service information over the communications link, the service information defining a set of services offered by the particular server device; and

invoke one of the set of services offered by the particular server device.

7.   The device of claim 6, wherein the processing unit is further operative to obtain use information over the communications link, the use information defining the requirements for invoking a particular service of the set of services offered by the particular server device.

8.   A method by which a common data protocol may be used to enable a first device of a first device type to communicate with a second device of a second device type over a first communications link, to enable the second device to communicate with a third device of a third device type over a second communications link, and to enable the third device to communicate with the first device over a third communications link, the first device and the second device together forming a first device pair, the second device and the third device together forming a second device pair, and the third device and the first device together forming a third device pair, wherein one of the devices in each of the first, second and third device pairs is a client device and the other of the devices in each of the first, second and third device pairs is a server device, the method comprising the steps of:

establishing a communicative connection between a client device and a server device using a link protocol; and

using the link protocol to establish communication between the client device and the server device using the common data protocol.

9.   The method of Claim 8, further comprising the steps of:

transmitting a type-command from the client device to the service device, the type-command requesting the service device to provide service information defining a set of services offered by the server device; and

in response to receiving the type-command at the server device, transmitting the service information from the server device to the client device;

10.   The method of Claim 8, further comprising the steps of:

transmitting a use-command from the client device to the server device, the use-command requesting the server device to provide use information defining the requirements for invoking one of a set of services offered by the server device;

in response to receiving the use-command at the server device, transmitting the use information from the server device to the client device.

11.   The method of Claim 8, further comprising the steps of:

transmitting a service-command from the client device to the server device, the service-command identifying a particular service to be performed by the server device; and

in response to receiving the service-command at the server device, initiating the requested service and transmitting a status-message to the client.

12.   A data packet representing a data structure and having a plurality of data fields, the data packet comprising:

a first data field comprising device identifier data representative of a type of server device;

5   a second data field comprising service identifier data representative of a particular service available from a server device; and

a third data field comprising data representative the end of the data structure.

10   13.   The data packet of claim 12, wherein the first data field further comprises data representative of a particular device.

14.   The data packet of Claim 12, wherein the device identifier data is always unique from the service identifier data.

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15.   The data packet of Claim 12, wherein the first, second and third data fields contain ASCII text.

16.   A method for enabling a first device to determine whether a second device is capable of communicating using the SDTP protocol, comprising the steps of:

transmitting a first signal from the first device using at least one communication technology and using a first communication protocol;

receiving the first signal at a second device;

transmitting a second signal from the second device using the communication technology, the second signal including data indicative of the second device's ability to communicate using the SDTP protocol;

receiving the second signal at the first device;

deriving the data from the second signal; and

analyzing the data to determine if the second device is capable of communicating using the SDTP protocol.

17.   A method for enabling a client device to communicate with a server device over a communications link, the method comprising the steps of:

establishing a communicative connection with the server device;

subsequent to establishing the communicative connection, transmitting a type-command to the server device, the type-command requesting the server device to provide service information defining a set of services offered by the server device;

receiving the service information;

subsequent to receiving the service information, transmitting a service-command to the server device, the service-command identifying a particular service to be performed by the server device.

18.   The method of claim 17, further comprising the steps of:

subsequent to establishing the communicative connection, transmitting a use-command to the server device, the use-command requesting the server device to provide use information defining the requirements for invoking one of a set of services offered by the server device; and

receiving the use information.

19.   A method for enabling a server device to communicate with a client device over a communications link, the method comprising the steps of:

establishing a communications link with the client device;

receiving a type-command from the client device, the type-command requesting the server device to provide service information defining a set of services offered by the server device;

in response to receiving the type-command from the client device, transmitting the service information to the client device;

receiving a service-command identifying a particular service to be performed by the server device; and

initiating the requested service.

20.   The method of claim 19, further comprising the steps of:

receiving a use-command from the client device, the use-command requesting the server device to provide use information defining the requirements for invoking one of a set of services offered by the server device; and

in response to receiving the use-command from the client device, transmitting the use information to the client device.